AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-27. (cancelled)

28. (new) A thermally stable avidin-related protein AVR4/5 which has at least two intermonomeric disulfide bridges in the tetramer.

29. (new) The avidin-related protein of claim 28, wherein the tetramer has four intermonomeric disulfide bridges.

30. (new) The avidin-related protein of claim 28, wherein the tetramer has six intermonomeric disulfide bridges.

31. (new) The avidin-related protein of claim 28, wherein the tetramer has one disulfide bridge between monomers 1 and 3 and one disulfide bridge between monomers 2 and 4.

32. (new) The avidin-related protein of claim 29, wherein the tetramer has two disulfide bridges between monomers 1 and 4 and two disulfide bridges between monomers 2 and 3.

33. (new) The avidin-related protein of claim 30, wherein the tetramer has one disulfide bridge between monomers 1 and 3, one disulfide bridge between monomers 2 and 4, two disulfide bridges between monomers 1 and 4 and two disulfide bridges between monomers 2 and 3.

34. (new) The avidin-related protein of claim 28, wherein the naturally occurring free cysteine is mutated to any other amino acid to improve the solubility of the protein.

35. (new) The avidin-related protein of claim 28, wherein the amino acid residue cysteine 122 has been changed to any other amino acid.

36. (new) The avidin-related protein of claim 35, wherein the amino acid residue cysteine 122 has been changed to serine.

37. (new) The avidin-related protein of claim 28, wherein the amino acid residue tyrosine 115 has been changed to cysteine.

38. (new) The avidin-related protein of claim 28, wherein the amino acid residue tyrosine 115 has been changed to cysteine and amino acid residue cysteine 122 has been changed to serine.

39. (new) The avidin-related protein of claim 28, wherein the amino acid residue aspartate 84 has been changed to cysteine and amino acid residue isoleucine 104 has been changed to cysteine.

40. (new) The avidin-related protein of claim 28, wherein the amino acid residue aspartate 84 has been changed to cysteine, amino acid residue isoleucine 104 has been changed to cysteine and amino acid residue tyrosine 115 has been changed to cysteine.

41. (new) The avidin-related protein of claim 28, wherein the amino acid residue aspartate 84 has been changed to cysteine, amino acid residue isoleucine 104 has been changed to cysteine and amino acid residue cysteine 122 has been changed to serine.

42. (new) The avidin-related protein of claim 28, wherein the amino acid residue aspartate 84 has been changed to cysteine, amino acid residue isoleucine 104 has beenchanged to cysteine, amino acid residue tyrosine 115 has been changed to cysteine and amino acid residue cysteine 122 has been changed to serine.

43. (new) The thermally stable avidin-related protein of claim 28 which is chicken AVR4/5.

44. (new) The thermally stable avidin-related protein of claim 28 having the amino acid sequence of SEQ ID NO: 10.

45. (new) A thermally stable avidin-related protein AVR4/5 having the amino acid sequence of SEQ ID NO: 11.